- 10



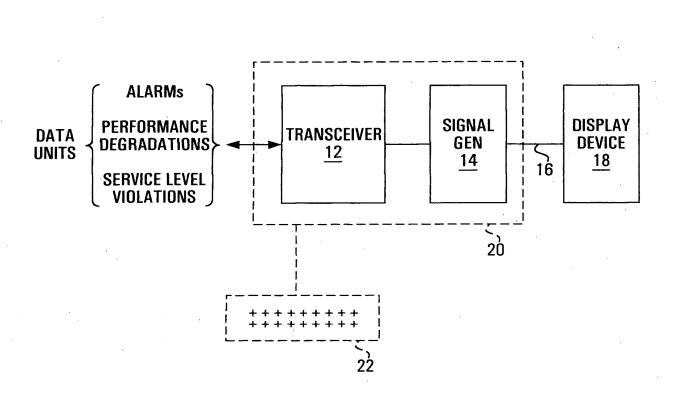


FIG. 1

1	E JC/80
0	(10 mm m
(3)	ENT & TRADE

	NORTEL NETWORKS - PROBLEM MAN	IAGER						X
7	PROBLEM LIST		7152	7154	7156	158	28	
	PROBLEM		VIOLAT	ALARMS DEGRAD' COST	DEGRAD'	COST	TIME	
	SONET: EXPERIENCING TRAFFIC LO	OSS, RECEIVE NOT PROTECTED	6	8	10	4	1/3/00 14:39:48	1
(SONET: EXPERIENCING TRAFFIC L	OSS, TRANSMIT NOT PROTECTED	6	6	7	5	1/3/00 14:24:42	_
	FR: SUBSYSTEM FAILURE, CONNECTIONS ARE DOWN	CTIONS ARE DOWN	ග	23	14	က	1/3/00 14:16:31	
	ATM: LOGICAL PATH SIGNAL LOST		∞	22	14	വ	1/3/00 14:13:36	
	SONET: REMOTE LINE HAS FAILED		4	œ	9	5	1/3/00 14:11:34	
	SWITCHING: TRUNK CONNECTIONS ARE DOWN	S ARE DOWN	တ	=	24	4	1/3/00 14:15:09	-
	CAUSE AND CORRECTION.	TRANSMIT TRAFFIC IS NOT PROTECTED ON NE 294 OC3G1s. THE NEAR-END OPTICAL CARD DETECTED A PROBLEM ON ITS TRANSMITTED OPTICAL SIGNAL	ECTED ON ITS TRANS	NE 294 OC.	3G1s. THE TICAL SIG	NEAR-E NAL	ND OPTICAL	
	DOCUMENT REFERENCE:	432-3653-821-ubal				:		
								•

FIG.2A

		· · · · · · · · · · · · · · · · · · ·					<		STENT & TRADE	OFE 10 MM STORY
	DETAILS 216 SERVICE VIOLATIONS	V 218 220 ALARMS PERFORMANCE DEGRADATIONS	RMANCED	-220 EGRADATIONS			> .	_		
210	_	CUST. SERVICE LEVEL	LEVEL	METRIC	DELIVEREDIAGREED	AGREED	PENALTY/IMPACT	MPACT		
	ACURA CANADA	FRAME RELAY	SILVER	SERVICE AVAIL.	95.2%	> 98.5%	\$300/\$	۵	•••	
<i>•</i>	AIR CANADA GENERAL MOTORS	VPN MEGAROUTE	0109 0109	MTBF LATENCY	2 DAYS 168 msec	< 5 DAYS < 150 msec	\$500/s \$80/s			
	JOE'S GARAGE	Ы	BRONZE	DIAL PORT AVAIL		> 95%	\$25/8			
-	MICROCELL SOLUTIN	AMPS TRUNK	+0109	SERVICE AVAIL.	96.3%	%5'66 <	\$500/\$			
	NATIONAL POST	FRAME RELAY	+0709 60LD+	PACKET LOSS	1.75%	> 93.9% > 0.7%	\$150/s \$150/s			
~ ~	SEARS CANADA	FRAME RELAY	0709	PACKET LOSS	1.75%	< 1%	\$50/s			
-	SYMPAIICU	IP VPN	60LD	M 18F	2 DAYS	> 5 DAYS	s/00G\$	D	3/	
	9 SLA(s) TOTAL A	SLA(s) TOTAL AT LAST REFRESH: 02/02/00 14:35:22	02/02/00	4:35:22					12	
222		METRIC	AGREED	PENALTY	Σ	METRIC	AGREED	PENALTY		
/	· .	(MTTR):	< 5 HOURS	RS S	POR	PORT AVAIL.:	> 95.0%	ľ		
Ţ	Z.	NETWORK AVAIL:	99.7%		PACK		< 150msec 99.7%			
		SEKVICE AVAIL.:	88.5% 88.5%	oes/nngs	5	UISCARUS:	< ∪.8%	pas/ng ¢		
	CONTACT INFORMATION:	ON: MIKE BENDER COMPANY NAME 732 STREET ST OTTAWA, CANADA	DER ' NAME ET ST CANADA	PHONE: (613) - 442-7276 CELL: (613) - 367-8944 FAX: (613) - 236-6745)) - 442-7276 - 367-8944 - 236-6745	224	VIEW CONTRACT	TRACT		
		K1K 2K2		e-mail: mbender(ocompany.com	@company.co	, m				

FIG. 2B

PE JC/48	
10 7000 W)
SPIENT & TRADENTS	′

= -		NORTEL NETWORKS - PROBLEM MAN	NAGER					
		PROBLEM LIST		7152	7154	7156	3 7158	28
151	\vdash	PROBLEM		VIOLAT.	ALARMS DEGRAD COST	DEGRAD'	1800	TIME
150	-		LOSS, RECEIVE NOT PROTECTED	6	8	10	4	1/3/00 14:39:48
		SONET: EXPERIENCING TRAFFIC L	LOSS, TRANSMIT NOT PROTECTED	6	6	7	5	1/3/00 14:24:42
	-	FR: SUBSYSTEM FAILURE, CONNECTIONS ARE DOWN	CTIONS ARE DOWN	တ	23	14	က	1/3/00 14:16:31
		ATM: LOGICAL PATH SIGNAL LOST		ω	22	14	മ	1/3/00 14:13:36
		SONET: REMOTE LINE HAS FAILED		4	8	9	വ	1/3/00 14:11:34
-		SWITCHING: TRUNK CONNECTIONS ARE DOWN	IS ARE DOWN	හ	=	24	4	1/3/00 14:15:09
		CAUSE AND CORRECTION:	TRANSMIT TRAFFIC IS NOT PROTECTED ON NE 294 OC3G1s. THE NEAR-END OPTICAL CARD Detected a problem on its transmitted optical signal	ECTED ON ANSMITTE	NE 294 OC: D OPTICAL	3G1s. THE SIGNAL	NEAR-E	ND OPTICAL CARD
								:
		DOCUMENT REFERENCE:	432-3653-821-ubal					

FIG. 3A

OF E OF THADE WELL)							4	5/12						
		<u> </u>	/3/00 14:50:07	/3/00 14:50:29 /3/00 14:50:04	/3/00 14:50:13	/3/00 14:52:24	/3/00 14:52:24	/3/00 14:52:32	5) UU 14:30:04	REFRESH NOW			LOSS OF FRAME. LOSS OF	CELL DELINIATION HAS BEEN DETECTED. CHECK	THE CABLING AND CONFIGURATION.
		SEVERITY TIME	A	CRITICAL SA 1/	MINOR NSA 1/	CRITICAL SA 11		ISA 1				REASON:	01		<u> </u>
	V ALARMS PERFORMANCE DEGRADATIONS	REASON	Rx AIS	LCD	DEGRADED SIGNAL	OPERATION COND	COMMSUBSYSTEM	Rx AIS	T	UZ/UU 14:35:22		ACKNOWLEDGED BY: LIQIANG	DISPLAY: BMERHFBB:0.0	HOSTNAME: BMERHFBB	TIME: 1/3/00 8:43
	PERFORMANC	UNIT	COMMUNI	CELL	NEAR PATH	OPERATOR	COMMUNI	0C3 G4 CF11	T DEEDER! OF	ALAKIM(S) IUIAL AI LASI KEFKESH: UZJUZJUU			ATH/0		
		TYPE	COM	COM		COM		FAC	TOTAL AT LAS	IUIALAI LAS	·	COMMUNICATIONS	Lp/2 SONET/O PATH/O	CRITICAL	
	DETAILS Service violations	NE NAME	1008 BoATM01	1008 BoATM01	1008 BoATM01	1011 CleoATM01	1011 CleoATM01	514 CleoATM01	OWNOVIV O			ALARM TYPE:	COMPONENT:	ALARM:	

222

PE JC/gg	
7 0 7003 E	
STENT & TRADENTS	,

	NORTEL NETWORKS - PROBLEM MANA	AGER					
	PROBLEM LIST		7152	7154	7156	3 7158	28
51	PROBLEM		VIOLAT'	ALARMS	ALARMS DEGRAD COST	COST	TIME
150~	SONET: EXPERIENCING TRAFFIC LO	OSS, RECEIVE NOT PROTECTED	6	8	10	4	1/3/00 14:39:48
	SONET: EXPERIENCING TRAFFIC LO	OSS, TRANSMIT NOT PROTECTED	6	6	7	5	1/3/00 14:24:42
	FR: SUBSYSTEM FAILURE, CONNECTIONS ARE DOWN	TIONS ARE DOWN	5	23	14	3	1/3/00 14:16:31
_	ATM: LOGICAL PATH SIGNAL LOST		æ	22	14	വ	1/3/00 14:13:36
	SONET: REMOTE LINE HAS FAILED		4	œ	9	വ	1/3/00 14:11:34
	SWITCHING: TRUNK CONNECTIONS ARE DOWN	S ARE DOWN	6	=	24	4	1/3/00 14:15:09
					•		-
-		TRANSMIT TRAFFIC IS NOT PROTECTED ON NE 294 0C3G1s. THE NEAR-END OPTICAL CARD	ECTED ON	NE 294 OC	361s. THE	NEAR-EI	ND OPTICAL CARD
	CAUSE AND CORRECTION:	DETECTED A PROBLEM ON ITS TRANSMITTED OPTICAL SIGNAL	ANSMITTE	D OPTICAL	SIGNAL		
	DOCUMENT REFERENCE:	432-3653-821-ubal					
	<				· •		
]							

FIG. 4A

<u> </u>								DE 10 MIR STRATE	OFE OF
	DETAILS SEDVICE VIOLATIONS 17	ALADMO DE	A A DAME DEDECTORAL	ONTIONE	_	•			
	⊣ ∣	ALANINO FE	REUNIMAINUE DEUKAL	JATIONS					
		TYPE	METRIC	ACTUAL	THRESHOLD	THRESHOLD NETWORK SERVICE	TIME		
•	BLUE-HAWKRTR	CLLI-AB	BECN	592	615	FRAME RELAY			
	562 BALLYRTR	UST 6102	LINE RX ES MARG. CALI RATE	10%	800 10%	SUNE! BACKBUNE	1/3/00 9:15:01 1/3/00 14:13:23		
		CLLI-AD	UNACC. CALL RATE	3%	4%	VOIP	1/3/00 14:52:12)
		CLLI-AA	UNACC. CALL RATE	7%	7%	VOIP	1/3/00 14:37:42		
	241 ROCKTN	DS1 G10 2	LINE Rx ES	900	800	FRAME RELAY CH.	1/3/00 9:16:43		
		CLLI-AD	UNACC. CALL RAE	% %	4%	VOIP	1/3/00 9:16:49		
							D	7/1	
	7 PERFORMANCE I	DEGRADATIC	PERFORMANCE DEGRADATION(S) TOTAL AT LAST	REFRESH	REFRESH: 02/02/00 14:35:22	:35:22		12	
	PERFORMANCE DEGRADATION GRAPHICAL DETAILS:	ADATION GR	APHICAL DETAILS:	TOTAL	TOTAL VOLUME BY DAY	ΑY			
			IOME I						
								· -	
			,	- 12/60 - 06/53 - 06/53 - 06/53 - 12/60	- 08/30 - 08/58 - 08/58 - 08/59 - 08/59 - 5/60 - 5/60	- 08/30 - 63/50			
				+HISTORICAL		o Current			
								7	

FIG. 4B



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SIGNAL GEN.

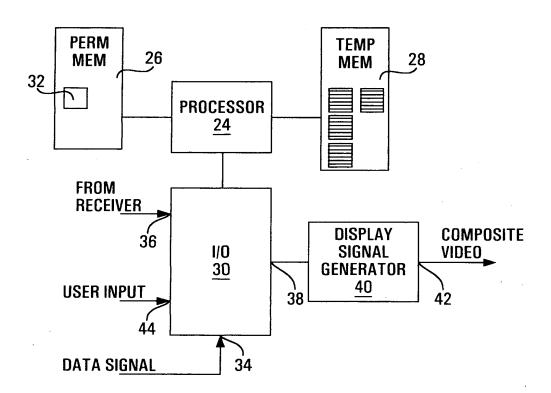


FIG. 5



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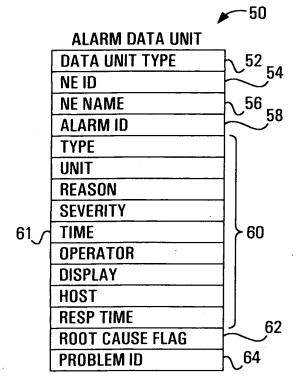


FIG. 6

100

•	130
PROBLEM RECORD	
PROBLEM ID	132
PROBLEM DESCRIPTION	134
VIOLATION COUNT	136
ALARM COUNT	$\frac{138}{138}$
DEGRADATION COUNT	√ 140
COST	142
TIME	144
CAUSE + CORRECTION	146
DOCUMENT REF	√ 148
	•

FIG. 9

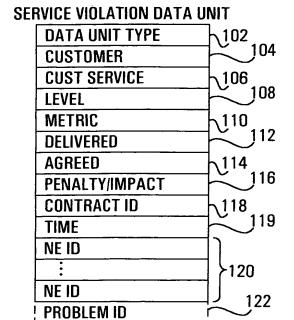


FIG. 7

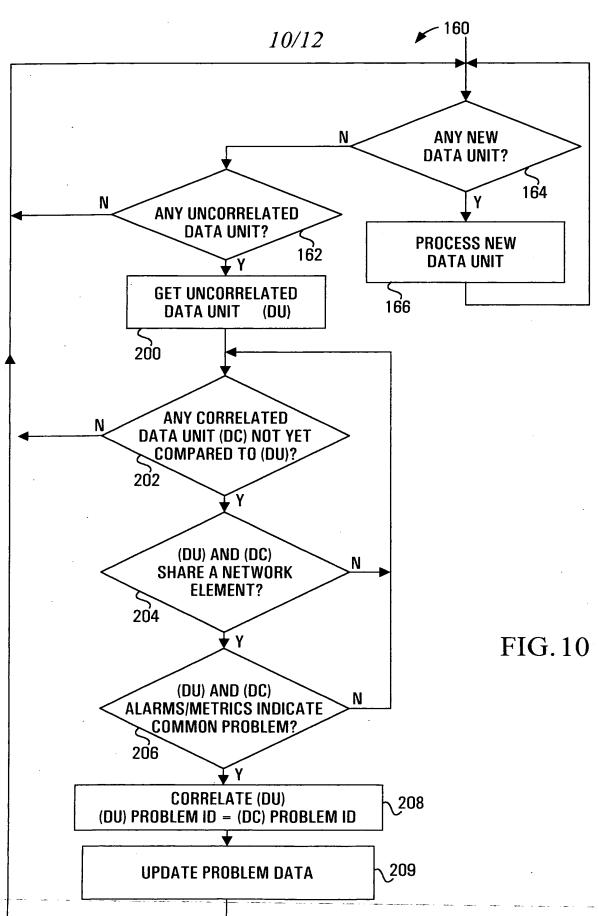
DATA UNIT DATA UNIT TYPE NE NAME NE ID _{_76} UNIT \₈₀ **METRIC** 82 **ACTUAL THRESHOLD** 84 .86 **NETWORK SERVICE** \88[°] TIME 90 **PROBLEM ID**

PERFORMANCE DEGRADATION

70

FIG. 8





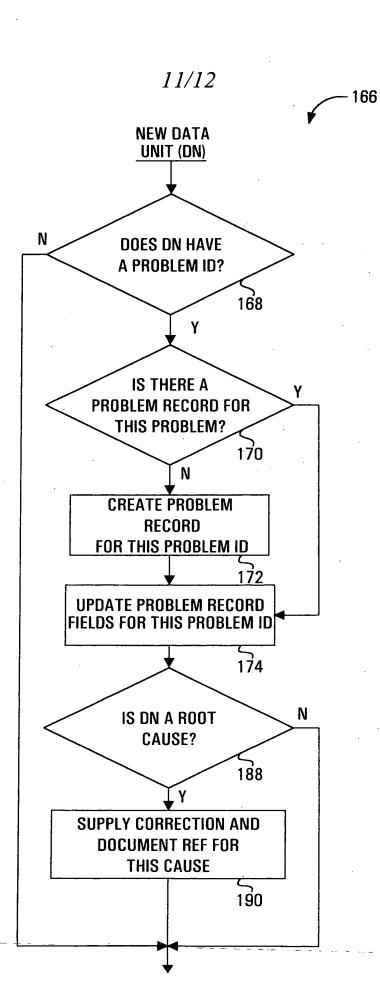


FIG. 11



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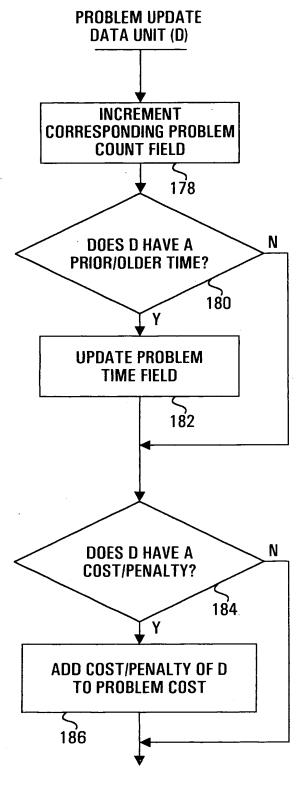


FIG. 12